भाकृअनुप
ICAR

समुद्री मात्स्यिकी सूचना सेवा
MARINE FISHERIES INFORMATION SERVICE

No. 96

JUNE 1989

तकनीकी एवं विस्तार अंकावली
TECHNICAL AND EXTENSION SERIES

केन्द्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान कोचिन, भारत
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INDIAN COUNCIL OF AGRICULTURAL RESEARCH

INTRODUCTION OF 'RINGU VALA' ALONG CALICUT COAST WITH A NOTE ON ITS GENERAL IMPACT*

Introduction

Along the Calicut coast, the fishing gears in vogue like 'Mathichala vala','Ayilachala vala','Nethal vala' *etc.*, are employed to catch almost single species resources. Though there are some other gears like 'Kolli vala' (the boat-seine), the catch composition does not vary much from that of the above mentioned gears. More over, these are rarely operated in deeper waters. Hence it is interesting to note the new introduction of 'Ring-seine' net locally called 'Ringu vala' along this coast. While the industry is interested in the production and returns, the biologists are inquisitive about the influence of the fishing gear on the resources. Therefore, the authors feel it worthwhile to present a brief account of the nature of the gear along with catch composition and its general impact on the fishery along this coast.

Gear and mode of operation

'Ringu vala' (Fig. 1) is made of long wall of netting with head rope and foot rope. Each net generally has

Fig. 1. A 'Ringu vala' on the shore.

a total length of about 400 m and breadth about 70 m. This length is more when compared to the same type of net in use along the southern areas of Kerala coast. Usually the net has four types of meshes. Along the head rope and foot rope side, it has larger meshes of 4.5 and 6.5 cm respectively with a breadth of 18 cm. These are followed on either side by another piece of net of about 80 cm breadth with a mesh size of 1.8 cm. The rest of the net is of uniform mesh of either 0.7 cm or 2.5 cm. The net with 0.7 cm corresponds to the conventional 'Nethal vala' and the other to the 'Kolli vala'.

The head rope is provided with both aluminium and synthetic floats. The foot rope has lead weights at about 20 cm intervals. In addition to this, rings (Fig. 2) made of brass with about 8 cm diameter are tied to the foot rope at varying intervals. Generally 40 to 50 such rings are used in a net. This in fact earned its name 'Ringu vala'. Another rope, 'purse line' passes through these rings.

The principle employed in the operation of this net is that the fish is surrounded both vertically and horizontally. Here again the practical experience and knowledge possessed by the traditional fishermen go a long way in the successful operation of the net. As soon as the shoal is detected, one of the crew members, jumps into the water holding one end of the net. The remaining net is carried by the boat around the fish shoal and the boat comes to the initial spot. Thus the net is set around the detected shoal of fish and this is done very quickly. After setting the gear, its bottom is closed by hauling the purse-line passing through the rings. This prevents the escape of the trapped fish. Finally the net along with the catch is hauled into the canoe. A total of about 20 crew members take part in this operation. The gear is operated upto a depth of 45 m.

Craft

In the operation of the gear, a single boat is used. But here the conventional medium sized dug-out canoe of Malabar coast is replaced by the large country craft quite common along the southern parts of Kerala coast called here as 'Chundan vallam' (Fig. 3). Thus introduction of the new gear has brought another type of country craft very much new to this area. The propulsion is usually by outboard engines of 25 H.P. capacity. However, in certain cases, two outboard engines of lesser capacity are also used in a single unit. These are necessitated by the total load of the large gear, 20 crew members and bulky catch.

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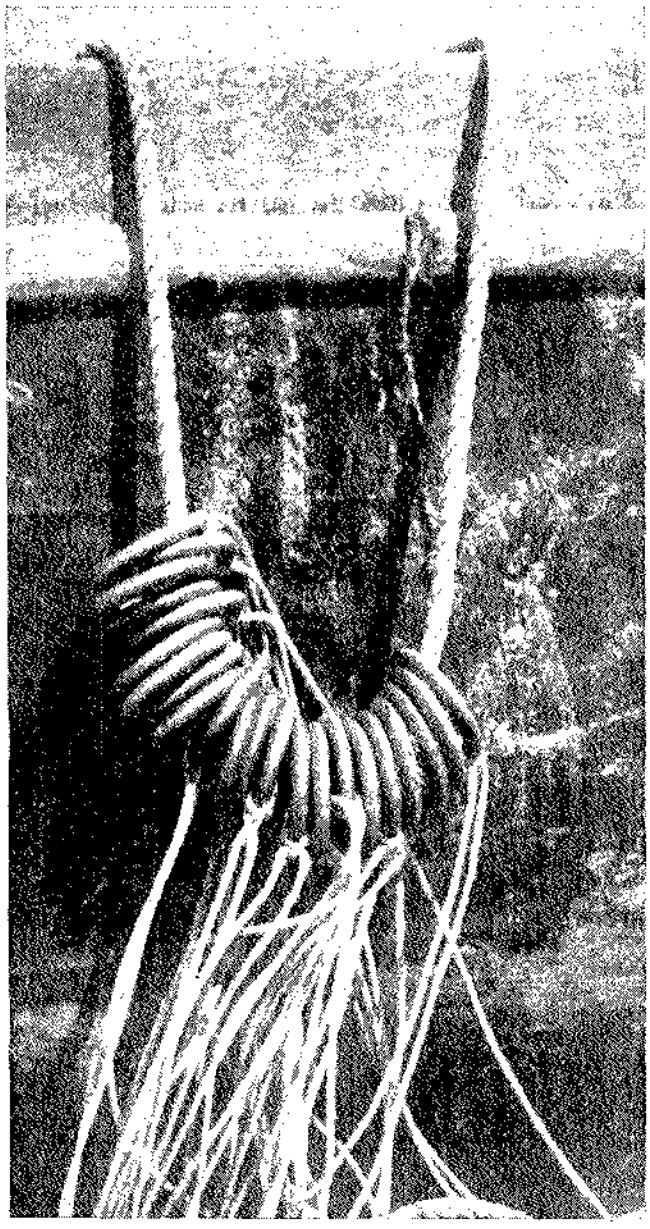

Fig. 2. The rings of 'ringu vala'.

Catch composition

The advent of this net has apparently changed the usual composition of the fish catch of this area. As the conventional gears are almost selective in fish catch the composition of the catch is predetermined. This situation may take a radical turn both quantitatively and qualitatively by the landing of the 'ringu vala'. The picture so far emerged, if indicative of what is in store, supports this. During the six week period after the introduction, large quantities of different species of fishes were landed. 3-4 tonnes of *Decapterus* sp. were landed on a day by a single unit, while 4-5 tonnes of tuna were landed on another day. Large quantities of *Thryssa* sp. and sciaenids were also landed in addition to anchovies, sardines, mackerel, cat fish, rainbow sardines and carangids. Landing of *Megalaspis cordyla* in a substantial quantity on a day was rather unusual to this area. It is also to be recorded that after many years, fishes were found drying on the shore and sciaenids, anchovies and carangids found place in them.

Fig. 3. The 'chundan vallam' from which the 'ringu vala' is operated

General remarks

Government agencies have come forward to help the ring seine fishermen for procuring the gear and the craft, and more than Rs. 1.5 lakhs have been advanced at a low interest to a single group of fishermen, who form the crew of the unit. Upto 25% subsidy is given on the advance. However, the agency, to be on the safer side, intervenes in the disposal of the catch. 45% of the total return of the day goes to the agency towards the repayment of the loan. The disposal of the catch is done through an agent recognised by both the parties at a moderate profit. The balance is shared equally by the crew members. Thus this system provides self employment for a group of fishermen and is likely to abolish the monopoly of ownership.

The gear was introduced along this coast on 28-8-1988 and already more than a dozen units are in operation. It is generally believed that the traditional fishermen are conservative by nature and are reluctant to try new methods. So when a new technique is introduced, it is likely to create resentment from atleast a section of the community. This is true for Calicut also. But for this, it looks that the gear is widely accepted by the fishermen.

Some section operate the net with the help of 4-5 conventional dug-out canoes fitted with low powered outboard engines. Here one boat is used for carrying

the net and others for the crew and catch. However, of late, 'ringu vala' owners are bit disappointed as the catches are not getting the expected return. This will be solved if the infrastructure for marketing is developed to cope up with the situation. The bulk of the fishes like tuna which are less acceptable locally, may call for diversification in marketing. This depends upon the future trend of this fisheries and its implication.